

# Enabling Operational Maneuver From Strategic Distances

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*He who occupies the field of battle  
first and awaits his enemy is at ease;  
he who comes late is weary.*

—Sun Tzu, *Art of War*

**A**RMY AND JOINT Transformation are about more than penny packets of lethal, light, and highly mobile forces. While information can leverage and focus combat power, the laws of physics still apply to bringing sufficient force to bear a continent away during a serious crisis. Army and joint Transformation will also require transforming our system for strategic mobility.

During the past decade, the U.S. Army has been engaged in a deliberate but sweeping effort to adapt its organization, equipment, and methods of operation to meet the requirements of a rapidly changing strategic and technological landscape. The effort began almost immediately after the Persian Gulf war with the Army's "Louisiana Maneuvers" and continued throughout the 1990s in a series of advanced warfighting experiments and Army After Next studies and wargames. During the past 2 years, the Army has pursued its future vision through a broad series of Army Transformation studies and experiments, including major wargames such as the Vigilant Warrior series and field exercises at Fort Hood, Texas; Fort Lewis, Washington; and the National Training Center, Fort Irwin, California. These series of studies have confirmed the future importance of multidimensional operations and the need for U.S. forces to conduct operational maneuver from a strategic distance.

From the Army's perspective, multidimensionality will be essential if we wish to modulate the application of violence to accommodate shifting operational and strategic objectives. Nations confronted with a single kind of threat, whether blockade, bombardment, or outright invasion, find ways

to defend against it that enable them to strike against their enemies, thus prolonging their own resistance, enlarging their enemies' costs, and sometimes, when the relative strengths are not wholly disproportionate, turning the very tide of war.

As military capabilities improve worldwide and as potential adversaries adapt their own patterns of operation to their perceptions of U.S. strengths and weaknesses, the premium associated with operations

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that attack an enemy simultaneously on multiple lines, against multiple points of vulnerability, and using multiple but complementary means will only increase. Such operations deprive an enemy of the freedom to concentrate his own efforts, overload his planning and coordination mechanisms, and compel him to expose his forces to new threats in an effort to protect them against others. As advanced military capabilities proliferate and as the physics of the battle area become more complex, the penalties associated with one-dimensional operations likely will increase. Even relatively primitive military forces have added new technological arrows to their quivers, as Russia's experience in Afghanistan and Chechnya and our own experiences in Somalia and Kosovo attest. In the latter conflict, a nation ranking 38th on the world's roster of military power endured nearly 3 months of relatively uncontested

bombardment without significantly degrading its war-making potential.

Regardless of the nature and intensity of a future military contingency, it is clear that the United States no longer can afford to rely on forces designed to operate from an established theater infrastructure or that require the prior development of such an infrastructure as a precondition for launching operations. Instead, we must expect that future joint operations will be mounted and sustained directly from the United States, its territories, and its allies, creating minimal essential theater support facilities concurrent with and as an integral part of combat operations.

One consistent study finding in the Army's series of wargames has been that the crucial measure of successful force projection is not the speed with which the first combat element engages. Rather, it is the rate at which the United States and its allies achieve decisive operational superiority, depriving an enemy of freedom of action and making its ultimate defeat both inevitable and irreversible. Another has been that the increasing time compression affecting future force projection and the expanding radius within which future theater infrastructure will be vulnerable to attack and will present major challenges.

In short, the purpose of operational maneuver from strategic distance is to achieve a deployment momentum that not only permits rapid seizure of the initiative but also never relinquishes it. That objective obviously has implications for the way future Army forces must be organized, equipped, and trained. But it has equally important implications for the strategic mobility assets on which the Army and its sister services rely. The former has been addressed elsewhere; the focus of this article is on the latter.

The recently concluded Army Transformation wargame, Vigilant Warriors 01, set in the future, explored the challenges of multidimensional operations and operational maneuver from strategic distances. It featured the Army's Objective Force, the other services' projected capabilities, and the capabilities of key allies and adversaries during the same time. It validated the premise that rapidly deployed Army Objective Forces—as part of a joint, multinational force—significantly impacted crisis resolution. It also proved that the immediate and sustained momentum of a land force expands its flexibility to exploit lethal fires, reduces risks, and constrains enemy options. Finally, it concurrently offered a venue to explore the force-projection con-

cepts and technologies necessary to produce a strategically responsive joint force capable of immediate decisive operations.

In its examination of the challenges of operational maneuver from strategic distances, Vigilant Warriors 01 focused on deployment capabilities that can provide assured access, decrease predictability and

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dwelling time, and quickly deliver troops and equipment together in sufficient size to generate immediate combat power. Today's inventory of lift assets cannot provide these capabilities, even when Army Transformation is completed.

Military and commercial airlift provide the necessary speed, but it is a piecemeal delivery system with a small capacity. Sealift has the necessary capacity, but it is slow and requires days to load and unload. Moreover, both sea and air assets are port and airfield dependent, affected by throughput limitations, and susceptible to a foe's antiaccess strategy because of their reliance on predictable entry points. The U.S. and allied forces in Vigilant Warriors 01 employed a mixture of current lift assets and promising future concepts.

Of all air and sea, current and future, lift capabilities, shallow draft high-speed ships (SDHSS)—because of their speed, throughput capability, and capacity—most significantly impacted force closure. Air deployment remains the only way to rapidly establish the initial crisis-response presence of air expeditionary forces and a division equivalent of ground forces needed to preclude enemy forces' early success. But after a few days, SDHSS had a distinct advantage. It was the only strategic platform that could deliver troops and equipment together in sufficient size to bring immediate combat power to bear. While in transit, commanders could conduct en route planning and receive intelligence updates. Moreover, the SDHSS did not require a fixed port because it could discharge its combat power wherever there was at least a 10-foot draft and an acceptable beach gradient or discharge site. Troops drove the future combat system (FCS) from the ship

Abrams tanks of the 2d Armored Cavalry Regiment line a wharf at Jubail, Saudi Arabia, during Operation Desert Shield, 27 January 1991.

***Vigilant Warriors 01 clearly demonstrated that future lift concepts are necessary to enable the operational maneuver of a multidimensional force over strategic distances. . . . Operational maneuver has historically begun from a base of strategic infrastructures. In the Cold War days, forward presence forces established that base in Europe. During fall and winter 1990, that base was established on the Arabian Peninsula. Our adversaries will never again permit such a buildup.***

ready to fight onward to the tactical assembly area.

The ability to bypass a fixed port was a critical capability during the wargame. Red forces targeted and attacked the conventional entry points into the theater, rendering significant damage and limiting the major ports' availability. The Blue joint force commander (JFC), however, anticipated Red's antiaccess campaign and attained a degree of surprise by taking advantage of the flexibility the SDHSS offered to discharge combat power at multiple entry points along the coast in an unpredictable pattern. Specifically, SDHSS delivered two Objective Force brigades within 3 days. In addition, an armored cavalry regiment, which had been placed on SDHSS just before commencement of deployment day (C-day) as a flexible deterrent option, landed on C+2 and provided im-

mediate combat power to the JFC.

The intratheater version of the strategic SDHSS, the theater support vessel (TSV)—the Army's future watercraft—also proved valuable. To conserve military air and to rapidly deliver Army air and missile defense capability into the theater, the TSV was initially used in a strategic role. Thereafter, it was another source of agility and flexibility as it allowed the JFC to insert combat power and sustainment with precision in a quickly changing environment. Not limited to ports, the TSV could operate at countless locations along the coast without losing efficiency.

The value of the SDHSS and TSV was further demonstrated in several postwargame excursions when the joint time-phased force deployment data was executed on the Joint Flow Analysis System for

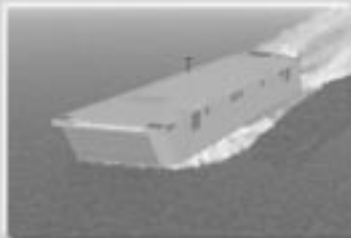
## 2015 TECHNOLOGY

Super Short Takeoff and Landing



Advanced Theater Transport (ATT)  
Two future combat systems (FCSs)  
Range: 3,000 nautical miles  
750-foot runway

Shallow Draft High-Speed Ship (SDHSS)



Speed: 55 knots  
Three ships deliver IBCT intact

CL 160



Speed: 52 knots  
Capacity: 176 short tons  
Range: 5,200 nautical miles

Advanced Maneuver Transport (AMT)



One FCS  
Range: 2,000 nautical miles

Theater Support Vessel (TSV)



12 TSV sorties deliver IBCT intact  
Range: 400 nautical miles

SkyCat



Speed: 100 knots  
Capacity: 1,000 short tons  
Range: 8,000 nautical miles

Transportation model without the SDHSS and the TSV included. Force closure of initial combat units was delayed in some cases for as much as 2 weeks. This lateness would have been compounded by the enemy's antiaccess efforts. More important, the Objective Force's late arrival would have allowed Red to set and consolidate its gains, thereby making entry more difficult and costly. In effect, the campaign would have required a much larger force, casualties would have risen significantly, and the length of the campaign could have doubled.

Future air concepts also played a critical part in the campaign's success. Three new types of airlift were employed: the advanced maneuver transport (AMT), the advanced theater transport (ATT), and two types of ultralarge airships (ULAs). The AMTs and ATTs were intratheater transports, while one type of ULA played a strategic role and the other an intratheater role (both ULAs were Civil Reserve Air Fleet assets).

The AMT and ATT gave the JFC the flexibility and agility to place combat units and sustainment at optimal points and time. The ATT's ability to take off and land on a 750-foot runway made it possible to operate in all the identified airfields in the area of operations. Moreover, it landed on 750 feet of road or field, which added innumerable points of

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entry, attack, and sustainment. It was this feature of the aircraft that enabled the JFC to deploy an Objective Force brigade from Germany into the area of operations between C+2 and C+5.

The AMT, with its ability to insert combat vehicles vertically, gave the commander unparalleled speed and agility on the battlefield. Generally independent of ground conditions, it enabled the JFC to conduct vertical envelopment and vertical maneuver. This capability avoided predictable, linear patterns of operations and sped up the enemy's collapse by forcing him to defend in more than one



direction. The aircraft also played a key sustainment role in resupplying the highly mobile Objective Force. Without this capability, linear operations and long ground lines of support would have been unavoidable.

While the AMT and the ATT were operationally valuable, their deployment posed several challenges. In the game, most of the AMTs and all the ATTs

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self-deployed from the continental United States (CONUS) at the same time that large numbers of cargo aircraft were also moving. This added a considerable burden on the already large en route infrastructure requirement at a critical time. The availability of aircraft parking space and fuel, ongoing commercial activity, base security, and overflight rights must be addressed. While not insurmountable obstacles, they complicate operations at this stage of the campaign.

The strategic ULA immediately impacted the wargame with its ability to deliver a 750-short ton sustainment load, given the Objective Force's hand-to-mouth logistics capability. The requirement for at least a 3,000-foot open landing space, appropriate materials handling equipment, its size, and the fact that it is a civilian platform limited the ULA to certain locations. Floor restrictions on the aircraft limited cargo to lighter items such as helicopters, light vehicles, and sustainment stocks. It was, nonetheless, a valuable asset because of the amount of cargo it could deliver.

The smaller, intratheater ULA could vertically

deliver its cargo by hovering at approximately 100 meters and lowering its payload. The cost associated with the vertical discharge, however, was the requirement for a load exchange for ballast. In the wargame, ballast water was used, and this limited using CargoLifter's CL 160 to routes along the coast.

Operational maneuver from a strategic distance is a new paradigm for multidimensional joint operations. Operational maneuver has historically begun from a base of strategic infrastructures. In the Cold War days, forward presence forces established that base in Europe. During fall and winter 1990, that base was established on the Arabian Peninsula. Our adversaries will never again permit such a buildup.

Vigilant Warriors 01 clearly demonstrated that future lift concepts are necessary to enable the operational maneuver of a multidimensional force over strategic distances. These concepts should not be thought of as replacement platforms for what the military has. Appropriate combinations of these could make joint transformation possible. Simply put, there is a limit to what can be done by reducing the demand for lift—by condensing the size and weight of the services' equipment. At some point, there has to be a significant increase in the supply of strategic lift, and that strategic lift must have certain qualities.

Strategic lift must enable operational momentum; that means speed and volume from an early stage. It has to avoid predictability and vulnerable chokepoints, and it must bypass intermediate staging facilities between the CONUS strategic base and the operational area. More important, the concepts for employing these systems must be deeply integrated into the concepts derived for campaigning. Operational maneuver will begin at home stations around the world. Maneuver will be across strategic distances to position forces and supporting infrastructure where and when they need to go into action. This will require a new strategic and operational mobility system. **MR**

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